

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012698**Date Inspected:** 19-Mar-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:****CWI Present:****Yes No****Inspected CWI report:** **Yes No N/A****Rod Oven in Use:** **Yes No N/A****Electrode to specification:** **Yes No N/A****Weld Procedures Followed:** **Yes No N/A****Qualified Welders:** **Yes No N/A****Verified Joint Fit-up:** **Yes No N/A****Approved Drawings:** **Yes No N/A****Approved WPS:** **Yes No N/A****Delayed / Cancelled:** **Yes No N/A****Bridge No:** 34-0006**Component:** OBG Trial Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 5BE to 5CE (Longitudinal Diaphragm)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts Installed at Longitudinal Diaphragm to Longitudinal Diaphragm at E3 and E4 (North and South side) at Panel Point (PP) 34 and PP 35 for Segment 5BE to 5CE. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00290 Dated March 19, 2010.

Bolt sizes used were M24 x 70 RC Set# DHGM240003 and final torque required was 543 N-m and

Bolt sizes used were M24 x 95 RC Set# DHGM240021 and final torque required was 540 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-584.

Note: Please refer the picture with tag number as 1 attached for more comprehensive detail.

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

Segment 5AE to 5BE (T-Ribs)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts Installed at T-Ribs to T-Ribs at Segment Transverse Splice Side Panel (Cross Beam Side) and Side Panel (Bike Path side) at Panel Point (PP) 31 and PP 32 for Segment 5AE to 5BE. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00290 Dated March 19, 2010.

Bolt sizes used were M22 x 65 RC Set# DHGM220018 and final torque required was 447 N-m (Side Panel Cross Beam Side)

Bolt sizes used were M22 x 70 RC Set# DHGM220004 and final torque required was 453 N-m (Bottom Panel)

Manual Torque wrench was been used with Sr. No. XQ2-578. The Offset measured at all the T-Ribs locations for Side Panel performed and noticed at 10th and 11th T-Rib at Side Panel Cross Beam side 5.5mm and 6.5mm offset respectively and at 18th T-Rib at Side Panel Bike Path side offset measured as 5mm. The tension verification performed after getting telephonic concurrence from Caltrans Engineer Mr. Aaron Pirclik (numbering reference taken from Longitudinal Diaphragm towards Side Panel).

Manual Torque wrench was been used with Sr. No. XQ2-578.

Note: Please refer the pictures tag number as 2 and 3 attached for more comprehensive detail.

Segment 5BE to 5CE (Bottom Panel T-Ribs)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bottom Panel T-Ribs to T-Ribs between Panel Point (PP) 34 and PP 35 for Segment 5BE to 5CE. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00291 Dated March 19, 2010.

Bolt sizes used were M22 x 70 RC Set# DHGM220004 and final torque required was 453 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-584.

Note: 5CE bolts not installed for 4 rows and 2 columns due to temporary sea fasteners except 8th and 10th T-Rib where all the bolts are been installed (reference for numbering taken from E4 towards E3).

Note: Please refer the picture tag number as 4 for more comprehensive details.

Segment 9AW

This QA Inspector performed Offset measurement using Carpenter Square and 710mm Straight Edge for Deck Panel to Deck Panel Diaphragm from East facing between the U-Ribs to U-Ribs from U-Rib 1 through to 27 and from West facing between the all U-Ribs to U-Ribs from U-Rib 28 through to 39 for Segment 9AW at Panel Point

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

(PP) 72. Report forwarded to team leader for further action.

Segment 6BE to 6CE

The QA inspector performed inspection for the punch list item 361 for U-Rib offset between 6BE to 6CE was determined by 1 meter straight edge and the location were Splice Plates and Reinforcing Splice plates has to be installed was determined. It was observed that locations identified as 6th , 8th, 9th, 10th , 11th, 12th, 23rd, 24th, 25th and 27th are not installed with Reinforcing Splice Plates.

Report forwarded to team leader for further action.

Segment 6AW to 6BW

The QA inspector performed inspection for the punch list item 362 for U-Rib offset between 6AW to 6BW was determined by 1 meter straight edge and the location were Splice Plates and Reinforcing Splice plates has to be installed was determined. It was observed that locations identified as 1st, 2nd, 3rd, 4th, 5th, 6th , 7th, 14th, 16th, 17th, 23rd, 24th, 25th, 26th, 37th, 38th and 39th are not installed with Reinforcing Splice Plates.

Report forwarded to team leader for further action.

Segment 6CE to 7AE

The QA inspector performed inspection for the punch list item 363 for U-Rib offset between 6CE to 7AE was determined by 1 meter straight edge and the location were Splice Plates and Reinforcing Splice plates has to be installed was determined. It was observed that locations identified as 2nd, 37th and 38th are not installed with Reinforcing Splice Plates.

Report forwarded to team leader for further action.

Segment 6BE

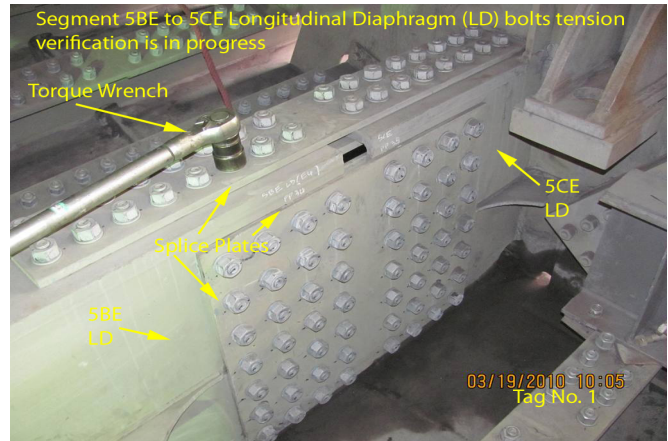
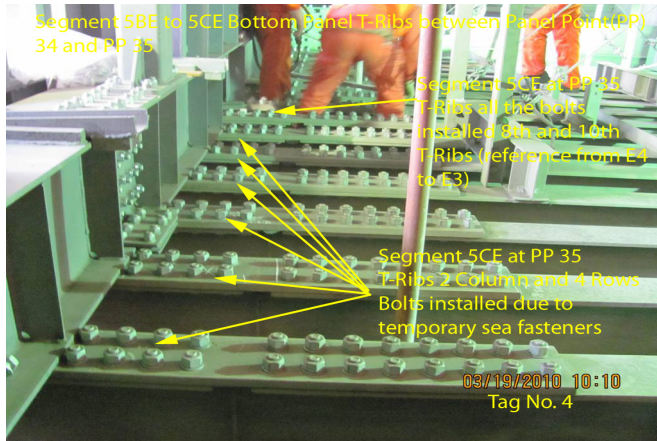
The QA inspector performed inspection for the punch list item 501 for Lower Chevron Bracing connection after shimming dimension check was been performed and observed gap within the allowable range.

Report forwarded to team leader for further action.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

(Continued Page 4 of 4)



Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric T Sang 1500-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Miller,Mark

QA Reviewer